

## California Drought Response Fact Sheet

California is in the third year of dry hydrologic conditions. While the most adversely affected by the drought conditions are the water service contractors north and south of Delta, Reclamation is working with all water users on short and long-term actions to improve California's ability to deal with droughts and low water supply allocations. Some of these actions include facilitating and supporting water transfers, utilizing groundwater banks, and further diversifying water supplies.

- California is in the third year of drought conditions, resulting in reduced runoff and lowered reservoir levels. Precipitation in some river basins in 2009 was near-normal, but the runoff up and down the Sacramento and San Joaquin Valleys has consistently been at only 65-70% of normal. The run-off is a good measure of the water available to fill California's reservoirs and inform the Bureau of Reclamation's allocations. The smaller basins responded well to the late-season precipitation: the American River Basin's Folsom Reservoir nearly filled and the San Joaquin's Friant Division is now at 100% Class 1 and 23% Class 2 deliveries. But while some areas were aided by the improved weather conditions, the South-of-Delta area still felt the effects of the continued dry conditions. As it relates to westside Central Valley Project (CVP) agriculture, the dry conditions in the spring of 2008 and early winter of 2008/2009 (drought related), combined with the late winter and spring 2009 pumping restrictions (ESA and regulatory related), resulted in a 10% allocation. Dry hydrologic conditions resulted in a loss of about 1,600,000 acre-feet of water and pumping curtailments in the Delta to protect delta smelt resulted in a loss of about 500,000 acre-feet of water that could have been moved South-of-Delta to the Central Valley Project (CVP) and State Water Project (SWP) service areas most affected by these Endangered Species Act regulatory actions. For the CVP, these reduced supplies have fallen predominantly on the water service contractors in the west side of the San Joaquin Valley.
- For the 2009 water year, Reclamation and the water users worked together to minimize the impacts of 3 consecutive dry years. The CVP water allocation for 2009 equates to about 80 percent of 5-year average of the overall amount of water delivered to all CVP contractors; however, CVP water allocations vary by type of contractor (e.g., water service, urban, water rights, refuge) and by geographic location; therefore reductions in allocations do not affect all water users the same. As mentioned above, the most adversely impacted CVP contractors are those on the west side of the San Joaquin Valley where the allocation to agricultural water service contractors is only 10 percent or about 195,000 acre-feet of water and M&I is 60 percent or about 83,000 acre-feet.

In 2009, water contractors worked to secure water from alternative sources to address the needs of their customers by acquiring water from willing sellers and by increasing groundwater pumping. State and Federal Contractors participated in the 2009 Drought Water Bank, transferred Yuba River Accord supplies, and purchased water from the Sacramento Valley and Stanislaus River water districts contractors. South-of-Delta contractors have also utilized Federal facilities pursuant to Warren Act contracts to move water acquired from non-Federal sources south-of-Delta.

- The contract water supply compared to the actual allocations for both north- and south-of-Delta as of August 2009 are as follows:

Contractors	Maximum Contract	M&I Historical Use (1)	Agricultural Use (2)	2009 Allocation by %	2009 Allocation by acre-feet
<b>North of the Delta</b>					
American River M&I	313,750	187,841		100%	187,841
Sacramento River	468,990				
Agriculture Water Service			443,065	40%	177,226
M&I Water Service		19,817		75%	14,863
Water Rights (3)	2,113,209			100%	2,113,209
Refuge - Level 2 (4)	151,250			100%	151,250
<b>South of the Delta Water Service</b>	2,099,648				
Agriculture Water Service			1,953,926	10%	195,393
M&I Water Service		139,571		60%	83,743
Water Rights	881,023			100%	881,023
Refuge - Level 2 (4)	271,001			100%	271,001
<b>Contra Costa In Delta</b>	195,000	170,000		65%	110,500
<b>New Melones East Side (5)</b>	155,000				37,000
Tri-Dams Settlement	600,000			100%	600,000
<b>Friant</b>					
Class 1	800,000			100%	800,000
Class 2	1,401,475			23%	322,339
Buchanan Unit	24,000				24,000
Hidden Unit	24,000				24,000
<b>Total Contracted Water (6)(7)</b>	<b>9,498,346</b>				<b>5,993,387</b>

Notes:

- M&I historical use computed based upon the average of actual deliveries made the last 3 years of unconstrained CVP delivery for all contractors except Contra Costa Water District where historical use figure represents amount agreed upon in contract renewal negotiations.
- Agricultural use computed as maximum contract amount less M&I historical use, if any.
- Sacramento River Water Rights includes: base supply (1,773,098 af) & Project supply (340,111 af)
- Project also acquires up to 133,264 af incremental Level 4 from willing sellers subject to availability and funding.
- New Melones East Side allocation is computed as an amount, rather than percent, since only one group receives the water allocation.
- Water supplied to City of Sacramento under operations agreement not included: American R. (245,000 af) & Sacramento R. (90,000 af)
- Total does not include 800,000 af CVPIA b(2) water provided out of Project yield for mitigation purposes.

- The Department of the Interior and Reclamation understands that the farmers, farm workers, and communities in the San Joaquin Valley want to improve their water supply and are not looking for “hand-outs.” In order to alleviate effects of the drought in 2009, Reclamation continues to coordinate actions and activities with numerous Federal and State agencies, including the U.S. Fish and Wildlife Service, National Marine Fisheries Service, the California Department of Water Resources, State Water Resources Control Board, California water users, and many other water entities. Following are specific activities that are being implemented:

Water Transfers: Reclamation is working closely with the California Department of Water Resources to use the flexibility of the CVP and SWP facilities to accommodate water transfers and exchanges among water districts to make the most effect use of limited supplies. Reclamation has worked to facilitate critical “North to South” transfers to CVP contractors totaling 146,000 acre-feet. Since January 2009, more than 136 local transfers, totaling some 340,000 acre-feet, have been approved between willing sellers and buyers throughout the CVP. Of this, some 230,000 acre-feet were south-of-Delta transfers (including transfers of rescheduled water).

Banked Groundwater: Reclamation is prioritizing the review and approval of proposals for the return of previously banked groundwater. As of July 17, Friant Division Contractors withdrew 7,016 acre-feet and Westlands Water District withdrew 6,063 acre-feet from existing groundwater banks.

Rescheduling: Reclamation approved requests from water contractors to “reschedule” (carryover) 2008 water supplies they had conserved in San Luis and Millerton Reservoirs into 2009. The total water rescheduled in San Luis Reservoir was 336,701 acre-feet and 55,615 acre-feet in Millerton Reservoir (Friant Division).

Consolidated Place of Use: Reclamation and the California Department of Water Resources filed a joint petition in March 2009 with the State Water Resources Control Board to Consolidate the CVP and SWP Places of Use to increase operational flexibility. In May, the State Water Resources Control Board adopted an Order approving the petition which allows CVP and SWP water to be delivered within the same overlapping area which aided in facilitating transfers and exchanges of water among both sets of contractors.

Refuge Level 2 Water Supply Deliveries: Reclamation continues to coordinate with Federal and State refuge managers on scheduling delivery of their WY 2009 contracted water supplies of 422,251 acre-feet to months outside the agricultural season. Further, groundwater wells are being installed to help supply water to the refuges, thus freeing up CVP supplies for agricultural and urban use.

- During his Town Hall Meeting in Fresno on June 28, 2009, Secretary Salazar announced his appointment of Deputy Secretary David Hayes to lead the Federal response to California’s water supply and related environmental issues in coordination with the State and stakeholders. Further, the Secretary has assigned Associate Deputy Secretary Laura Davis

and Reclamation Commissioner Michael Connor to co-chair the Federal Drought Action Team, which includes representatives of the U.S. Department of Agriculture, U.S. Environmental Protection Agency, NOAA Fisheries, Small Business Administration, U.S. Army Corps of Engineers, U.S. Department of Labor, the Council on Environmental Quality, and the Office of Management and Budget. The team meets regularly to ensure maximum attention to ways the Federal agencies can assist in marshaling existing resources to respond to and mitigate the impacts of the drought on California water users.

The Secretary has also elevated Federal involvement and leadership in the development of the State-led Bay Delta Conservation Plan (BDCP), a collaborative planning process that seeks to provide for a sustainable Sacramento-San Joaquin Delta to address the needs of several threatened and endangered species while improving water system reliability south of the Delta. Reclamation has executed Financial Assistance Agreements with the California Department of Water Resources to assist in the completion of planning efforts, environmental documents, and technical studies.

- The Department has allocated \$40 million in American Recovery and Reinvestment Act (ARRA) funds for drought relief projects to help reduce impacts as quickly as possible in the short term and with a major emphasis on minimizing impacts in WY 2010. The projects include temporary pipelines and pumps, new domestic and irrigation water wells, well-enhancement projects, and a groundwater monitoring effort. Many of the projects will help preserve permanent crops and associated jobs in the San Joaquin Valley, an area experiencing economic hardship and high unemployment rates.
- Reclamation has allocated \$134 million for 27 projects approved under the Title XVI (water recycling and reuse) Program; over \$22 million will be spent on six projects in the MP Region. These projects will provide 13,000+ acre-feet of recycled water per year, reduce dependence on existing potable water supplies and improve water supply reliability.
- Reclamation finalized a funding agreement with the Tehama Colusa Canal Authority (TCCA) to build an interim pumping plant at Red Bluff to allow for pumping of an additional 500 cubic feet per second (cfs) of water to TCCA for irrigation starting in May 2009. This is in addition to existing pumping capacity of about 465 cfs. The interim pumping plant will allow the gates of the Red Bluff Diversion Dam to remain open, providing unimpeded fish passage for threatened and endangered salmon, steelhead, and green sturgeon, as well as other fish species.
- With funding provided by the ARRA and other water conservation programs, Reclamation is encouraging water use efficiency projects to accelerate implementation of conservation activities through cost-shared grants:
  - ARRA - Reclamation has solicited proposals for \$40 million in ARRA Challenge Grants for water use efficiency projects. 4 grants will be awarded to San Joaquin Valley water districts totaling almost \$11 million. An additional project in Sacramento for urban water meters will be awarded for \$5 million. Projects in the Mid-Pacific Region include

expanding existing groundwater water banks and development of new groundwater banking facilities, water marketing, automating water delivery structures, and installation of water meters. Awards will range from \$1-\$5 million. In all, projects in California totaled over \$27 million of the program's \$40 million.

- Water Marketing and Efficiency Challenge Grants - Reclamation is currently awarding eight Water Marketing and Efficiency grants to San Joaquin Valley Contractors for \$2.4 million. Awards are for \$300,000 each and projects include ground water banking facilities, flow measurement, and system automation.
- CALFED Water Use Efficiency Grant Program- Two projects were awarded in the San Joaquin Valley for \$1.6 million. Projects will provide benefits to the Bay-Delta while providing better water management to the districts.
- Water Conservation Field Services Program- Reclamation has awarded five grants in the San Joaquin Valley for system automation, flow measurement control, and mobile irrigation labs for land owners to aid in efficient irrigation practices. Awards totaled \$175,000.
- On July 31, 2009, the Mid-Pacific Region issued Rescheduling/Carryover Policy and Guidelines for the 2010 water year, which runs from March 1, 2010, through February 28, 2011. Historically, Reclamation has released the Guidelines late in the water year; however, recognizing contractors' need to make plans in preparation for the 2010 water year, the Region committed to publishing the 2010 Water Year Guidelines by August 1, 2009. In addition to the Guidelines, which apply to allocated CVP water only, the policy also addresses storage priority for various types of Project and non-Project water to be stored in San Luis Reservoir, some of which may be kept in storage well into the 2010 water year.
- As California's population continues to increase, Reclamation is working with the State on longer-term plans and projects to prepare to manage future water supply shortages, improve available supplies, and minimize hardships. Projects include:
  - Bay Delta Conservation Plan (BDCP): The BDCP is a collaborative planning process that seeks to provide for a sustainable Sacramento-San Joaquin Delta to address the needs of several threatened and endangered species while improving water system reliability south of the Delta. Reclamation and the Department of Water Resources have jointly entered into Financial Assistance Agreements to provide aid in the development and completion of planning and environmental documents, along with technical studies.
  - The 2-Gates Fish Protection Demonstration Project: This 5-year experiment is designed to test alternative ways of protecting Delta Smelt by modifying flows in the Sacramento-San Joaquin Delta (Delta) to reduce entrainment of smelt and other sensitive aquatic species in the Central Valley. This experiment is estimated to cost \$44 million (not including O&M, and monitoring). Construction would take 7-9 weeks and is limited by

a “in-water construction window” from August 1 through November 30. The project would use gate structures mounted on barges which would be sunk into place on Old River and Connection Slough and then operated to reduce turbidity near the SWP and CVP pumps. The project is premised on a belief that the smelt will not enter an area of reduced turbidity and so would not move close enough to entrained in CVP/SWP export pumps. Project proponents (e.g., Metropolitan Water District, San Luis & Delta Mendota Canal Authority) recently received a sole source construction bid of \$59.7 million to complete installation by November 30, 2009. As a result, the project proponents delayed the construction schedule to accommodate cost reductions associated with a slower fabrication and construction process.

- Delta-Mendota Canal (DMC) and California Aqueduct Intertie Project: The Intertie would connect the DMC and Aqueduct via a new pipeline and pumping plant to help meet water supply demands, allow for maintenance and repair activities, and provide the flexibility to respond to CVP and SWP emergencies. The project was identified as a proposed action in the August 2000 CALFED Bay-Delta Program Programmatic Record of Decision. A Record of Decision is planned to be signed in December 2009 allowing initiation of construction.
- Other Storage Projects: As a component of CALFED, Reclamation is studying storage projects related to water supply and reliability, including the Shasta Lake Water Resources Investigation, North-of Delta Offstream Storage Investigation (Sites Reservoir), Los Vaqueros Reservoir Expansion Investigation, and the Upper San Joaquin River Basin Storage Investigation.